

EFFECT OF ANTI-VASCULAR ENDOTHELIAL GROWTH FACTOR (ANTI - VEGF) INJECTION ON TRANSLUCENCY GRADE AND LENGTH OF PRIMARY PTERYGIUM

Obdes Maharni Emputri, Hendriati, Getry Sukmawati
**Ophthalmology Department Medical Faculty Andalas University/
Dr. M. Djamil Padang Hospital**

Introduction: Pterygium is a triangle-shaped growth, fibrovascular, hyperplasia and proliferative growth of limbal conjunctiva toward the surface of the cornea. Risk factors for pterygium development appear to be predominantly environmental in nature, such as solar and ultraviolet radiation and chronic irritation.

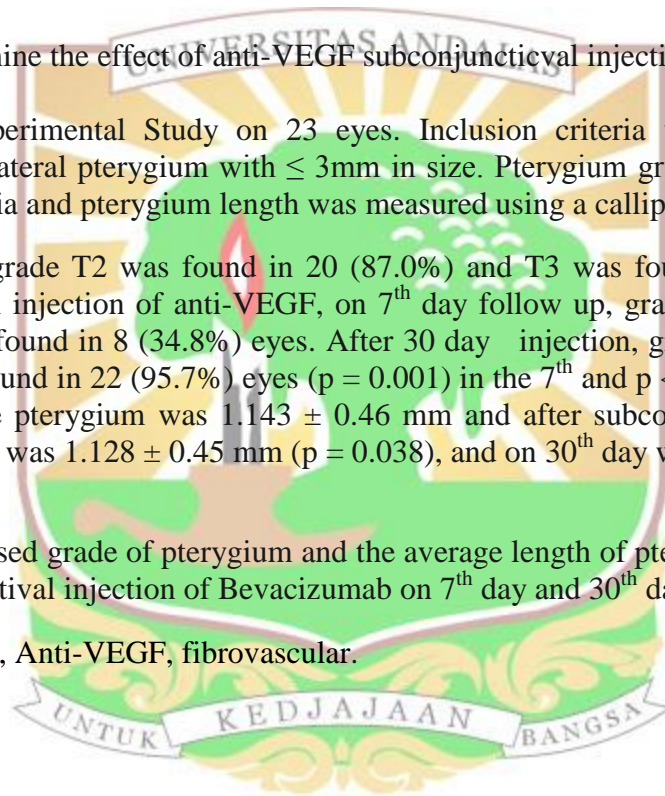
Objective: To determine the effect of anti-VEGF subconjunctival injection to pterygium body.

Methods: Quasi-Experimental Study on 23 eyes. Inclusion criteria were all patients with primary bilateral/unilateral pterygium with $\leq 3\text{mm}$ in size. Pterygium grade was assessed using the Donald Tan criteria and pterygium length was measured using a calliper.

Results: Pterygium grade T2 was found in 20 (87.0%) and T3 was found in 3 (13.0%) eyes. After subconjunctival injection of anti-VEGF, on 7th day follow up, grade T2 was found in 15 (65.2%) and T1 was found in 8 (34.8%) eyes. After 30 day injection, grade T2 was found in 1 (4.3%) and T1 was found in 22 (95.7%) eyes ($p = 0.001$) in the 7th and $p < 0.001$ on 30th day. The average length of the pterygium was $1.143 \pm 0.46\text{ mm}$ and after subconjunctival injection of anti-VEGF on 7th day was $1.128 \pm 0.45\text{ mm}$ ($p = 0.038$), and on 30th day was $1.119 \pm 0.44\text{ mm}$ ($p = 0.005$).

Conclusions: Decreased grade of pterygium and the average length of pterygium was significant following subconjunctival injection of Bevacizumab on 7th day and 30th day.

Keyword: Pterygium, Anti-VEGF, fibrovascular.



PENGARUH INJEKSI ANTI-VASCULAR ENDOTHELIAL GROWTH FACTOR (ANTI-VEGF) TERHADAP GRADE TRANSLUSENSI DAN PANJANG PTERIGIUM PRIMER

Obdes Maharni Emputri, Hendriati, Getry Sukmawati
**Bagian Ilmu Kesehatan Mata Fakultas Kedokteran Universitas Andalas/
RS. Dr. M. Djamil Padang**

ABSTRAK

Pendahuluan: Pterigium adalah pertumbuhan segitiga yang bersifat degeneratif, fibrovaskular, hiperplasia, proliferasif yang tumbuh dari limbal konyungtiva menuju permukaan kornea. Faktor resiko perkembangan pterigium adalah radiasi ultraviolet dan iritasi kronis.

Tujuan: Mengetahui pengaruh injeksi anti-VEGF subkonyungtiva terhadap pterigium.

Metode: *Quasi Experimental Study* dengan sampel penelitian 23 mata. Kriteria inklusi adalah semua pasien yang menderita pterigium primer bilateral/unilateral dengan ukuran ≤ 3 mm. Penilaian grade pterigium menggunakan kriteria Donald Tan dan panjang pterigium diukur dengan jangka sorong.

Hasil: Terdapat pterigium dengan grade translusensi T2 sebanyak 20 (87,0%) mata dan grade translusensi T3 sebanyak 3 (13,0%) mata. Setelah injeksi *Bevacizumab* subkonyungtiva di badan pterigium, pada follow up hari ke 7 didapatkan pterigium grade translusensi T2 sebanyak 15 (65,2%) mata dan grade translusensi T1 sebanyak 8 (34,8%) mata. Pada follow up hari ke 30 didapatkan pterigium grade translusensi T2 sebanyak 1 (4,3%) mata dan grade translusensi T1 sebanyak 22 (95,7%) mata. Setelah uji statistik didapatkan nilai $p=0,001$ pada follow up hari ke 7 dan nilai $p<0,001$ pada hari ke 30. Panjang rerata pterigium sebelum injeksi *Bevacizumab* subkonyungtiva di badan pterigium adalah $1,143 \pm 0,46$ mm, menjadi $1,128 \pm 0,45$ mm pada hari ke 7 dengan nilai $p=0,038$. Follow up hari ke 30 panjang pterigium $1,119 \pm 0,44$ mm dengan nilai $p=0,005$.

Kesimpulan: Terdapat penurunan grade translusensi dan panjang pterigium yang bermakna setelah injeksi *Bevacizumab* subkonyungtiva pada hari ke 7 dan hari ke 30.

Kata kunci: Pterigium, anti-VEGF, fibrovaskular.